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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,334	12/04/2003	Hiroyuki Sumi	AD6932USNA	7389

23906 7590 10/19/2005

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WILMINGTON, DE 19805

EXAMINER

SASTRI, SATYA B

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,334

Applicant(s)

SUMI ET AL.

Examiner

Satya B. Sastri

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-17 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)):

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/12/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application filed on December 4, 2003. *Claims 1-17* are now pending in the application.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. *Claims 1-16*, drawn to resin composition and a molded article, classified in class 524, subclass 504 and 428, various, respectively.
 - II. *Claims 17*, drawn to a laser welded article, classified in class 428, subclass 57.

Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful to make molded articles that may be bonded by gluing or ultrasonic welding and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior

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art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. Arne Jarnholm on October 17, 2005 a provisional election was made *with* traverse to prosecute the invention of I, *claims 1-16*.

Affirmation of this election must be made by applicant in replying to this Office action. *Claim 17* is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

6. The specification is objected to because it is unclear if the copolymers of at least two of PET, PBT and PPT refers to a terpolymer or quatropolymer or if the polymers are actually

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copolymerized. It is also unclear as to what the two different mixtures in lines 7-8 allude to.

Additionally, “foregoing” in line 8 is spelt incorrectly.

Claim Rejections - 35 USC § 112

7. ***Claims 1-15*** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This claim contains limitations that are drawn to both a composition and an article. Case law holds that a single claim that claims both a composition and the article is indefinite under 35 U.S.C. 112, second paragraph. See *Ex Parte Lyell*, 17 USPQ 2d 1548 (Bd. Pat. App. 7 Inter.1990).

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. ***Claims 1-15*** are rejected under 35 U.S.C. 101 because the claims are directed to neither an “article” nor a “composition,” but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. §101, which is drafted so as to set forth the statutory classes of invention in the alternative only.

Claim Objections

10. ***Claim 13*** is objected to because it is unclear as to what the copolymers of at least two of PET, PBT and PPT refer to. It is also unclear as to what the two different mixtures in line 5 allude to. Additionally, “foregoing” is spelt incorrectly.

11. Before the outstanding rejections are discussed, the following analysis of preamble to claims has been made:

- It is the Examiner’s opinion that the preamble language does not provide the antecedent basis for terms in the body of the claim.
- It is the Examiner’s opinion that the language of the body of the claim set out the complete invention.
- It is the Examiner’s opinion that the preamble language merely provides a statement of purpose or intended use.
- It is the Examiner’s opinion that the preamble language is not essential to understand limitations and/or terms in the claim body.

Thus, the phrase “flame resistant, laser weldable” is not accorded any patentable weight.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. *Claims 1-16* are rejected under 35 U.S.C. 103(a) as being unpatentable over Harashina et al (WO01/48086) in view of Takahashi et al. (US 4,742,109).

At the outset, it is noted that WO01/48086 is used for date purposes. US 6,790,886 B2 is used as the English equivalent of the WIPO publication in the body of the rejection.

Prior art to Harashina et al. discloses flame retardant resin composition comprising polyester resins with improved flame retardancy through the use of phosphazene compound and phenolic resin (abstract). As polyesters, a variety of polyalkylene terephthalate series resins are disclosed in column 3, lines 29-48). The compositions may include phosphorous-containing compound in amounts of 1 to 40 parts by weight per 100 parts of polyester resin. Additionally, as the phenolic resin, novolak resins, aralkyl resins and polyvinylphenol series resins are disclosed in amounts of 1 to 40 parts by weight per 100 parts of polyester resin (column 6, lines 57-67 and column 7, lines 55-60). In addition to the phosphazene-containing compound, other flame retardants such as resorcinol bis(diphenyl phosphate) and resorcinol bis(dixylyl phosphate) may be used in amounts of 0 to 50% by wt., relative to 100 parts of polyester resin. Furthermore, the resin compositions may include 1 to 60% by wt. of filler such as kaolin, mica, talc and calcium carbonate (column 9, lines 48-55). Working example in table 2 exemplifies compositions comprising appropriate amounts of polyester, novolac-based phenolic resin, resorcinol bis(dixylyl phosphate) and inorganic fillers in example 13 and comparative example 12.

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The difference between the prior art and the present invention is the inclusion of an acrylic resin in amounts of 1 to 25%, based on the total wt. of the composition, of thermoplastic acrylic polymer.

The secondary reference to Takahashi et al. concerns polybutylene terephthalate (PBT) compositions useful as engineering plastics. The polyacrylate resin may be a multistage polymer in which the rubber-like first stage is and a thermoplastic rigid final stage (column 1, lines 60-68 and column 2, lines 1-14). The prior art discloses that addition of flame retardants to mitigate the flammability of PBT results in a decrease in impact resistance and extensibility of the molding composition. The prior art teaches overcoming such a disadvantage by adding 0.1 to 20% by wt. of polyacrylate resin to the composition (column 1, lines 15-54, working examples in Table 1). In light of such benefit, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include at least 0.1 to 20% by wt. of polyacrylate resin in the polyester resin compositions disclosed by Harashina et al. and thereby obtain the present invention.

Conclusion

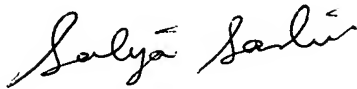
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272 1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272 1114.

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The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

October 17, 2005



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700